Thomas William Rademacher, et al.

Application No.: 09/622,253

Page 2

chemically derivatising the <u>precursor</u> antibody to prevent the carbohydrate chain <u>from</u> returning to the interstitial site so that the <u>resulting derivatised</u> antibody is capable of binding to the immobilised IgG.

- 2. The method of claim 1, wherein the precursor antibody has Fc associated carbohydrate chains which terminate with an N-acetylglucosamine residue.
- 3. The method of claim 1, [wherein the method includes the step of using β -galactosidase to remove terminal galactose residues from] comprising treating the precursor antibody with β -galactosidase to remove terminal galactose residues.
- 4. The method of claim 1, wherein the chemical derivatisating [step] comprises thiolating the antibody in the presence of carbonate.
- 5. The method of claim 1, [wherein the method includes the step of] comprising separating derivatised antibodies which can associate with one another at a site of the immobilised IgG, from those derivatised antibodies which cannot so associate.
- 6. The method of claim 5, wherein [said step of]separating the derivatised antibodies is <u>performed</u> by [the use of] Con A chromatography or by pH elution from a Protein A affinity column.
- 7. [An] A derivatised antibody [as obtainable] made by the method of claim 1, wherein the derivatised antibody [has been] is derivatised to expose a carbohydrate chain thereof, so that the derivatised antibody is capable of binding to the immobilised IgG.
- **8.** The <u>derivatised</u> antibody of claim 7, wherein the carbohydrate chain is an Fc carbohydrate chain.
- 9. The <u>derivatised</u> antibody of claim 7, wherein the carbohydrate chain terminates with an N-acetylglucosamine residue.



Thomas William Rademacher, et al.

Application No.: 09/622,253

Page 3

- 10. The <u>derivatised</u> antibody of claim 7, wherein the carbohydrate chains of the derivatised antibody are capable of specifically binding <u>to</u> a binding site on the [immobilised] <u>derivatised</u> antibody, <u>when said derivatised antibody is immobilised</u>.
- 11. The <u>derivatised</u> antibody of claim 7, wherein the immobilised IgG is a galactosyl IgG.
- 12. The <u>derivatised</u> antibody of claim 7, wherein the <u>derivatised</u> antibody is conjugated to a label, toxin, drug, prodrug or effector.
- 13. The <u>derivatised</u> antibody of claim 7, wherein the <u>derivatised</u> antibody is specific for an inflammatory mediator.
- 14. The <u>derivatised</u> antibody of claim 7, <u>wherein the derivatised antibody is</u>
 <u>formulated</u> for [use in a method of] medical treatment or <u>for</u> diagnosis of a condition associated with <u>the</u> immobilised IgG.
- 15. The <u>derivatised</u> antibody of claim 14, wherein <u>the derivatised antibody</u> <u>provides</u> for [use in] the diagnosis or treatment of an autoimmune disorder.
- 16. The <u>derivatised</u> antibody of claim 15, wherein the autoimmune disorder is selected from <u>the group consisting of</u>: rheumatoid arthritis, juvenile arthritis, Crohn's disease, type I insulin dependent diabetes, type II diabetes, sarcoidosis, erythema nodosum leprosum, and tuberculosis.
- 17. The antibody of claim 16, wherein the antibody is <u>formulated</u> for [use in the] diagnosis or treatment of erosive joint disease and the immobilised IgG is anti-type II collagen IgG.
- 18. [Use of a derivatised antibody of claim 7, for the preparation of a medicament for the treatment or diagnosis of a condition associated with immobilised IgG] A medicament comprising the derivatised antibody of Claim 7, which medicament treats or diagnoses a condition associated with immobilized IgG.

